

a supplying port for supplying the liquid to the recording head, said supplying port being disposed in a portion which takes a bottom position during operation;
a first engaging portion, provided on a side of said main body, for engaging with a first locking portion of the holder;
a second engaging portion for engaging with a second locking portion of the holder; and
a supporting member for supporting said second engaging portion, provided on a side opposite from said side having said first engaging portion, said second engaging portion being resiliently displaceable and resiliently engageable with a second locking portion of the holder by said supporting member.

44. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said main body accommodates a negative pressure producing material for retaining the liquid.

45. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said main body accommodates a negative pressure producing material for retaining the liquid, and wherein said supplying port is provided with fibrous material.

46. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said main body contains black ink.

47. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein the inside of said main body is divided into three portions, and said supplying port and an air vent are provided for each of the three portions, and wherein said three portions contain yellow, cyan and magenta inks, respectively.

48. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said elastic supporting member is provided with an operating portion for facilitating mounting or demounting of said holder.

49. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein when said container is mounted to the holder, said second engaging portion takes a position above said first engaging portion.

50. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said second engaging portion is in the form of a projection, having a height of approximately 1 mm, extended from said supporting member.

51. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said supporting member is in the form of an elastic lever extended upwardly with inclination or curvature from a portion adjacent to a bottom portion of said opposite side.

52. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said supporting member is in the form of an elastic lever extended downwardly with inclination or curvature from a portion adjacent to a top portion of said opposite side.

53. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein each of two sides connecting said one side and said opposite side is provided with a projection contactable to a part of the holder.

54. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein a normal line from a central portion of said supplying port to a line connecting a central portion of said first engaging portion and a central portion of said second engaging portion, is not more than 10 mm.

55. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein a normal line from a central portion of a contact portion of a supply tube of the recording head to said supplying port to a line connecting a central portion of said first engaging portion and a central portion of said second engaging portion, is not more than 10 mm.

56. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said supplying port is on a line connecting a central portion of said first engaging portion and a central portion of said second engaging portion.

57. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said holder is detachably mountable relative to a carriage of the ink jet recording apparatus, and is provided with a mounting engageable portion for mounting to the carriage, and wherein when the holder is mounted to the ink jet recording apparatus, said second engaging portion takes a position above the mounting engageable portion.

60. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said supporting member elastically moves toward said main body when said container is mounted or demounted relative to the holder.

65. (Unchanged From Previous Version) A liquid container according to Claim 47, wherein said three chambers are disposed along a direction from said one side to said opposite side.

68. (Unchanged From Previous Version) A liquid container according to Claim 150, wherein said latch lever is extended integrally from a neighborhood of a bottom portion of said main body, and is elastically movable about the neighborhood, and wherein said second engaging portion is disposed between the neighborhood and an operating portion provided at a free end of said latch lever.

69. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein when said liquid container is mounted to said holder, said second

engaging portion is inside the second locking portion of the holder, and is not extended outwardly.

70. (Unchanged From Previous Version) A liquid container according to Claim 69, wherein said second engaging portion is disposed outside said supporting member.

72. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein an inclined surface is provided at a corner portion between a bottom side, in operation, of said main body and said one side.

73. (Unchanged From Previous Version) A liquid container holder having an ink jet head, which is capable of holding a liquid container for containing ink to be used for recording, wherein said liquid container holder is provided with an opening for receiving the liquid container, said liquid container holder comprising:

a tube for fluid communication with an ink supply port of said liquid container, provided at a portion taking a bottom position in operation;

a first locking portion engageable with a first engaging portion provided on one side of said liquid container; and

a second locking portion which is resiliently displaceable and resiliently engageable with a second engaging portion of a latch lever provided on a side of said liquid container opposite from said one side.

74. (Unchanged From Previous Version) A liquid container holder according to Claim 73, wherein each of two sides connecting a side of said holder having said first locking portion and a side thereof having said second locking portion, is provided with a stepped recess in which the associated one of two sides of said liquid container connecting said one side and said opposite side, slides.

75. (Unchanged From Previous Version) A liquid container holder according to Claim 73, wherein a bottom portion in operation of said holder is provided with urging means for upwardly urging said liquid container.

76. (Unchanged From Previous Version) A liquid container holder according to Claim 73, wherein said holder is detachably mountable relative to a carriage of an ink jet recording apparatus, and said holder is provided with a mounting engageable portion for engagement with the carriage, and wherein said mounting engageable portion is below said second locking portion of the liquid container.

77. (Unchanged From Previous Version) A liquid container holder according to Claim 73, wherein an inside of said holder is divided into two zones, each of which is provided with said first and second locking portions, and wherein said liquid container containing one color ink is mountable to one of said zones, and said liquid container containing a plurality of inks in integrally formed chambers is mountable to the other zone.

78. (Unchanged From Previous Version) A liquid container holder according to Claim 73, wherein an inclined surface is provided at a corner portion between a bottom side of said holder and a side having said first locking portion.

79. (Unchanged From Previous Version) A liquid container holder according to Claim 73, wherein an inside of said holder is divided into two zones, and an inclined surface is provided at a corner portion between a bottom side and a side cutting said first locking portion in each zone.

80. (Unchanged From Previous Version) A liquid container holder according to Claim 73, wherein said holder has an integral ink jet head, and said ink supply tube is in fluid communication with said ink jet head.

81. (Unchanged From Previous Version) A liquid container holder according to Claim 73, wherein said holder is provided on a side with an electric contact for receiving electric signal to be supplied to the ink jet head.

82. (Unchanged From Previous Version) A liquid container holder according to Claim 73, wherein the side of said holder having said second locking portion is provided with an holder operating portion to be used when said holder is mounted or demounted relative to a carriage of an ink jet recording apparatus, and said operating portion is disposed adjacent to the operating portion of said latch lever of said liquid container.

83. (Unchanged From Previous Version) A liquid container holder according to Claim 80, wherein the ink jet head is provided with electrothermal transducers as ejection energy generating elements, and film boiling is caused in the ink by thermal energy provided by the electrothermal transducers, by which the ink is ejected.

84. (Unchanged From Previous Version) A liquid container holder according to Claim 82, wherein said operating portion of said holder and said operating portion of the liquid container are disposed on a side extended crossing with a scanning direction of the carriage.

85. (Unchanged From Previous Version) A liquid container holder according to Claim 82, wherein said operating portion of said holder is disposed below the operating portion of the liquid container.

86. (Unchanged From Previous Version) A liquid container holder according to Claim 76, wherein said holder detachably retains the liquid container while said holder is mounted on the carriage.

87. (Unchanged From Previous Version) A liquid container for an ink jet recording apparatus, capable of containing liquid to be used by an ink jet head, wherein said liquid container is detachably mountable to a holder, said liquid container comprising:
a main body for containing the liquid;

a supplying port for supplying the liquid to the recording head, said supplying port being disposed in a portion which takes a bottom position during operation;
an air vent portion for fluid communication between inside of said main body and ambience;
a first engaging portion, provided on a side of said main body, for engaging with a first locking portion of the holder; and
a latch lever having a second engaging portion which is resiliently displaceable and resiliently engageable with a second locking portion of the holder by said latch lever;
wherein said supplying port is disposed between said first engaging portion and said second engaging portion.

88. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein said latch lever is provided with an operating portion for facilitating demounting of said holder.

89. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein said latch lever elastically moves toward said main body when said container is mounted or demounted relative to the holder.

90. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein said main body accommodates a negative pressure producing material for retaining the liquid.

91. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein said main body accommodates a negative pressure producing material for retaining the liquid, and wherein said ink supplying port is provided with fibrous material.

92. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein said main body contains black ink.

93. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein the inside of said main body is divided into three portions, and said supplying port and said air vent are provided for each of the three portions, and wherein said three portions contain yellow, cyan and magenta inks, respectively.

94. (Unchanged From Previous Version) A liquid container according to Claim 93, wherein said three chambers are disposed along a direction from said one side to said opposite side.

95. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein said container is mounted to the holder, and said second engaging portion takes a position above said first engaging portion.

96. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein said latch lever is in the form of a lever extended upwardly with inclination or curvature from a portion adjacent to a bottom portion of said opposite side.

97. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein said latch lever is extended integrally from a neighborhood of a bottom portion of said main body, and is elastically movable about the neighborhood, and wherein said engaging portion is disposed between the neighborhood and an operating portion provided at a free end of said latch lever.

98. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein when said liquid container is mounted to said holder, said second engaging portion is inside the second locking portion of the holder, and is not extended outwardly.

99. (Unchanged From Previous Version) A liquid container according to Claim 87 or 98, wherein said second engaging portion is disposed outside said latch lever.

100. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein each of two sides connecting said one side and said opposite side is provided with a projection for contact with a part of said holder.

101. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein an inclined surface is provided at a corner portion between a bottom side, in operation, of said main body and said one side.

116. (Unchanged From Previous Version) An ink container holder for holding an ink container for containing ink to be supplied to an ink jet head and being detachably mountable to a reciprocally-movable carriage, said ink container holder comprising:

an opening for receiving the ink container;

an ink receiving tube for receiving the ink from said ink container;

a first internal wall having a first engaging hole for engagement with a claw-like projection of the ink container; and

a second internal wall having a second engaging hole for engagement with a latching claw of a latching lever of the ink container.

117. (Unchanged From Previous Version) An ink container holder according to Claim 116, wherein an engaging recess is formed in a top portion of a wall connecting said first internal wall and said second internal wall at an end adjacent said first internal wall.

118. (Unchanged From Previous Version) An ink container holder according to Claim 116, further comprising a latching lever guide groove for guiding the latching lever of the ink container, said guide groove having the second engaging hole.

119. (Unchanged From Previous Version) An ink container holder according to Claim 116, further comprising urging means for urging a bottom surface of the ink container toward the opening.

120. (Unchanged From Previous Version) An ink container holder according to Claim 116, wherein a plurality of ink receiving means are provided to extend in a direction from the first internal wall to the second internal wall.

121. (Unchanged From Previous Version) An ink container holder according to Claim 116, further comprising a plurality of partition walls for partitioning the opening into a plurality of portions, for each of which said first engaging hole and said second engaging hole are provided.

122. (Unchanged From Previous Version) An ink container holder according to Claim 121, wherein the plurality of partition walls is two, and wherein one of the portions receives a one color ink container and the other receives a multi-color ink container.

123. (Unchanged From Previous Version) An ink container holder according to Claim 121, wherein a crossing portion between said bottom and said first internal wall is provided with an inclined portion.

124. (Unchanged From Previous Version) An ink container holder according to Claim 116, further comprising a recording head and an ink passage through which the ink receiving tube is in fluid communication with the recording head.

125. (Unchanged From Previous Version) An ink container holder according to Claim 124, wherein said holder is mounted on a carriage reciprocally-movable, and said carriage comprises a positioning portion, on a first side, for positioning the ink container; an electric contact for electric connection with head contacts of an ink jet head mounted to said ink container; and a guiding member, resiliently supported on a second side, for engagement with an engaging portion of said ink container holder.

126. (Unchanged From Previous Version) An ink container holder according to Claim 125, wherein said electric contact and said guiding member are arranged opposite each other.

127. (Unchanged From Previous Version) An ink container holder according to Claim 126, wherein an operating portion is projected out.

128. (Unchanged From Previous Version) An ink container holder according to Claim 127, wherein said operating portion and said engaging portion are provided at different positions.

129. (Unchanged From Previous Version) An ink container holder according to Claim 124, wherein said recording head has electrothermal transducers for generating thermal energy for ejecting ink.

130. (Unchanged From Previous Version) An ink container holder according to Claim 129, wherein the thermal energy causes film boiling of the ink.

131. (Unchanged From Previous Version) An ink container holder for holding an ink container for containing ink to be supplied to an ink jet head with which said ink container holder is integral, said ink container holder detachably mountable to a carriage which is reciprocally-movable, comprising:

a first operating portion for mounting and demounting said ink container to said ink container holder; and

a second operating portion for mounting and demounting said ink container holder to said carriage;

wherein said first operating portion and said second operating portion are provided in a same side relative to a movement direction of the carriage.

132. (Unchanged From Previous Version) An ink container holder according to Claim 131, wherein said first operating portion is located above said second operating portion.

133. (Unchanged From Previous Version) An ink container holder according to Claim 131, wherein a plurality of such first operating portions are provided, which are arranged in a line.

149. (Unchanged From Previous Version) An ink jet recording apparatus, comprising:

a reciprocally-movable carriage;

a holder having an integral ink jet head, said holder being detachably mountable to said carriage; and

plural ink containers, each detachably mountable to said holder by engagement and disengagement between an engaging portion and a latching claw of each of said ink containers, which have different color inks.

150. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said supporting member is comprised by a latch lever.

151. (Unchanged From Previous Version) A liquid container according to Claim 43, further comprising an air vent portion for air communication between an inside of said main body and ambience.

152. (Unchanged From Previous Version) A liquid container according to Claim 43, wherein said holder has the ink jet head.

153. (Unchanged From Previous Version) A liquid container according to Claim 87, wherein said holder has the ink jet head.

DI
Sub
154. (New) A liquid container for an ink jet recording apparatus, capable of containing liquid to be used by an ink jet head, wherein said liquid container is detachably mountable to a holder having the ink jet head, said liquid container comprising:

- a main body for containing a liquid;
- a supply port for supplying the liquid to the recording head, said supply port being disposed in a portion which takes a bottom in operation;
- a first engaging portion, provided on a first side of said main body, adapted to engage with a first locking portion of the holder; and
- an elastic supporting member having a second engaging portion at an outside thereof adapted to engage with a second locking portion of the holder, wherein said supply port is disposed between said first engaging portion and said second engaging portion.

2
155. (New) A liquid container according to Claim 154, characterized in that said liquid container comprises an air vent portion for fluid communication between the inside of said main body and the ambience.

Sub
156. (New) A liquid container according to Claim 154, characterized in that said main body accommodates a negative pressure producing material for retaining the liquid.

157. (New) A liquid container according to Claim 156, characterized in that said liquid container comprises an air vent portion for fluid communication between the inside of said main body and the ambience.

158. (New) A liquid container according to Claim 154, characterized in that said supply port is provided with fibrous material.

159. (New) A liquid container according to Claim 154, characterized in that said main body contains black ink.

160. (New) A liquid container according to Claim 154, characterized in that the inside of said main body is divided into three portions, and said supply port and said air vent are provided for each of said three portions, and wherein said three portions contain yellow ink, cyan ink and magenta ink, respectively.

161. (New) A liquid container according to Claim 160, characterized in that said three portions are disposed along a direction from said first side to said other side.

162. (New) A liquid container according to Claim 154, characterized in that said elastic supporting member is provided with an operating portion for facilitating mounting or demounting said liquid container in the holder.

9/ 163. (New) A liquid container according to Claim 154, characterized in that when said container is mounted to the holder, said second engaging portion takes a position above said first engaging portion.

10/ 164. (New) A liquid container according to Claim 154, characterized in that said second engaging portion is in the form of a projection, having a height of approximately 1 mm, extended from said elastic supporting member.

11/ 165. (New) A liquid container according to Claim 154, characterized in that said elastic supporting member is in the form of a latch lever extended upwardly from a portion adjacent to a bottom portion of said other side.

12/ 166. (New) A liquid container according to Claim 154, characterized in that said elastic supporting member is in the form of a latch lever extended downwardly from a portion adjacent to a top portion of said other side.

13/ 167. (New) A liquid container according to Claim 154, characterized in that two of the sides connecting said first side and said other side are provided with a projection contactable to a part of the holder, respectively.

14/ 168. (New) A liquid container according to Claim 154, characterized in that a normal line from a central portion of said supply port to a line connecting a central

portion of said first engaging portion and a central portion of said second engaging portion is not more than 10 mm.

15
~~169~~. (New) A liquid container according to Claim ~~154~~, characterized in that a normal line from a central portion of a contact portion of a supply tube of the recording head to said supply port to a line connecting a central portion of said first engaging portion and a central portion of said second engaging portion is not more than 10 mm.

16
~~170~~. (New) A liquid container according to Claim ~~154~~, characterized in that said supply port is on a line connecting a central portion of said first engaging portion and a central portion of said second engaging portion.

17
~~171~~. (New) A liquid container according to Claim ~~154~~, characterized in that said elastic supporting member elastically moves toward said main body when said container is mounted or demounted relative to the holder.

18
~~172~~. (New) A liquid container according to Claim ~~154~~, characterized in that said elastic support member is extended upwardly integrally from a neighborhood of a bottom portion of said main body, and is elastically movable about the neighborhood, and that said second engaging portion is disposed between the neighborhood and an operating portion provided at a free end of said elastic supporting member.

173. (New) A liquid container according to Claim 154, characterized in that when said liquid container is mounted to the holder, said second engaging portion is inside the second locking portion of the holder, and is not extended outwardly.

174. (New) A liquid container according to Claim 154, characterized in that an inclined surface is provided at a corner portion between a bottom side, in operation, of said main body and said first side.

175. (New) A liquid container according to Claim 154, characterized in that said supply port and said elastic supporting member are protected by a protection member during transportation of said liquid container.

176. (New) A liquid container according to Claim 175, characterized in that said protection member has a sealing member for sealing said supply port of said a liquid container.

177. (New) A liquid container system comprising a liquid container holder holding the liquid container according to any of Claims 154 to 176.

178. (New) A reciprocable carriage carrying the liquid container holder according to Claim 177.

D1
27
~~179. (New) An ink jet apparatus comprising a carriage according to Claim 178, and control means for generating the electric signal for ejection of the ink from the recording head.~~

~~180. (New) A liquid container according to Claim 154, characterized in that said elastic member is extended downwardly from a neighborhood of a top portion, and is elastically movable about the neighborhood, and said higher second engaging portion is disposed at a position closer to a free end of said elastic member than an operating portion~~

D
~~181. (New) A liquid container for an ink jet recording apparatus, capable of containing liquid to be used by an ink jet head, wherein said liquid container is detachably mountable to a holder having the ink jet head, said liquid container comprising:~~
~~a main body for containing a liquid;~~
~~a supply port for supplying the liquid to the recording head, said supply port being disposed in a portion which takes a bottom in operation;~~
~~a first engaging portion, provided on a first side of said main body, adapted to engage with a first locking portion of the holder; and~~
~~an elastic supporting member having a second engaging portion at an outside thereof adapted to engage with a second locking portion of the holder, wherein said second engaging portion is provided between a free end of said elastic supporting member and a portion thereof where said elastic supporting member is supported by said main~~

body, and wherein said supply port is disposed between said first engaging portion and said second engaging portion.

182. (New) A liquid container for an ink jet recording apparatus, capable of containing liquid to be used by an ink jet head, wherein said liquid container is detachably mountable to a holder having the ink jet head, said liquid container comprising:

a main body for containing a liquid:


a supply port for supplying the liquid to the recording head, said supply port being disposed in a portion which takes a bottom in operation;

a first engaging portion provided on a first side of said main body, adapted to engage with a first locking portion of the holder; and

an elastic supporting member having a second engaging portion adapted to engage with a second locking portion of the holder said second engaging portion of said supporting member being faced to another side and spaced apart therefrom.

183. (New) A liquid container according to Claim 182, characterized in that said liquid container comprises an air vent portion for fluid communication between the inside of said main body and the ambience.

184. (New) A liquid container according to Claim 182, characterized in that said main body accommodates a negative pressure producing material for retaining the liquid.



185. (New) A liquid container according to Claim 184, characterized in that said liquid container comprises an air vent portion for fluid communication between the inside of said main body and the ambience.

186. (New) A liquid container according to Claim 182, characterized in that said supply port is provided with fibrous material.

187. (New) A liquid container according to Claim 182, characterized in that said main body contains black ink.

188. (New) A liquid container according to Claim 182, characterized in that the inside of said main body is divided into three portions, and said supply port and said air vent are provided for each of said three portions, and wherein said three portions contain yellow ink, cyan ink and magenta ink, respectively.

189. (New) A liquid container according to Claim 188, characterized in that said three portions are disposed along a direction from said first side to said other side.

190. (New) A liquid container according to Claim 182, characterized in that said elastic supporting member is provided with an operating portion for facilitating mounting or demounting said liquid container in the holder.

~~191. (New) A liquid container according to Claim 182, characterized in that when said container is mounted to the holder, said second engaging portion takes a position above said first engaging portion.~~


~~192. (New) A liquid container according to Claim 182, characterized in that said second engaging portion is in the form of a projection, having a height of approximately 1 mm, extended from said elastic supporting member.~~

~~193. (New) A liquid container according to Claim 182, characterized in that said elastic supporting member is in the form of a latch lever extended downwardly from a portion adjacent to a top portion of said other side.~~

~~194. (New) A liquid container according to Claim 182, characterized in that two of the sides connecting said first side and said other side are provided with a projection contactable to a part of the holder, respectively.~~

~~195. (New) A liquid container according to Claim 182, characterized in that a normal line from a central portion of said supply port to a line connecting a central portion of said first engaging portion and a central portion of said second engaging portion is not more than 10 mm.~~

~~196. (New) A liquid container according to Claim 182, characterized in that a normal line from a central portion of a contact portion of a supply tube of the~~

 recording head to said supply port to a line connecting a central portion of said first engaging portion and a central portion of said second engaging portion is not more than 10 mm.

197. (New) A liquid container according Claim 182, characterized in that said supply port is on a line connecting a central portion of said first engaging portion and a central portion of said second engaging portion.

198. (New) A liquid container according to Claim 182, characterized in that said elastic supporting member elastically moves away from said main body when said container is mounted or demounted relative to the holder.

199. (New) A liquid container according to Claim 182, characterized in that said elastic support member is extended downwardly integrally from a neighborhood of a top portion of said main body, and is elastically movable about the neighborhood, and that said second engaging portion is disposed at a position closer to a free end of said elastic support member than an operating portion.

200. (New) A liquid container according to Claim 182, characterized in that when said liquid container is mounted to the holder, said second engaging portion is inside the second locking portion of the holder and is not extended outwardly.

201. (New) A liquid container according to Claim 182, characterized in that an inclined surface is provided at a corner portion between a bottom side, in operation, of said main body of said first side.

202. (New) A liquid container according to Claim 182, characterized in that said supply port and said elastic supporting member are protected by a protection member during transportation of said liquid container.

203. (New) A liquid container according to Claim 202, characterized in that said protection member has a sealing member for sealing said supply port of said a liquid container.

204. (New) A liquid container system comprising a liquid container holder holding the liquid container according to any of Claims 182 to 203.

205. (New) A reciprocable carriage carrying the liquid container holder according to Claim 204.

206. (New) An ink jet apparatus comprising a carriage according to Claim 205, and control means for generating the electric signal for ejection of the ink from the recording head.